

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-446
Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1989 model-year General Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered medium-duty vehicles:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
KGC5.7T5HACX	5.7 (350)	Air Injection - Pump Exhaust Gas Recirculation Oxygen Sensor Oxidation Catalyst Three-Way Catalyst (Central Fuel Injection) (On-Board Diagnostics)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

<u>Loaded Vehicle Weight(lbs.)</u>	<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
3751-5750	0.50	9.0	1.0
5751 & larger	0.60	9.0	1.5

The following are the certification emission values for this engine family:

<u>Loaded Vehicle Weight(lbs.)</u>	<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
3751-5750	0.39	4.6	0.4
5751 & larger	0.32	5.5	1.3

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 18th day of February, 1988.


K. D. Drachand, Chief
Mobile Source Division

17-KGC5.7T5HACX-1A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Evaporative Family: KFO-3G

Engine Displacement Liters (Cubic Inches) - Type: 5.7 (350) V-8

ABBREVIATIONS:

Ignition System

CA-Centrifugal Advance
EIC-Electronic Injection Control
EI-Electronic Ignition
ESAC-Electronic Spark Advance Control
VA-Vacuum Advance
VR-Vacuum Retard

Fuel System

CI-CL, DID, DIP, EFI, MFI
nV-nVenturi Carburetor

GM Abbreviations

A/C-Air Conditioning
FC-Forward Control
HD-Heavy Duty
CI-Cubic Inch (Displacement)
TBI-Throttle Body Injection
RWD-Rear Wheel Drive
4x2-Two Wheel Drive
4x4-Four Wheel Drive
6x4-Four Wheel Drive

Exhaust Emission Cont System

AIP-Air Injection Pump
AIV-Air Injection Valve
EGR-Exhaust Gas Recirculation
EM-Engine Modification
DBC-Dual Bed Catalyst
HOS-Heated Oxygen Sensor
OC-Oxidation Catalyst
OS-Oxygen Sensor
SPL-Smoke Puff Limiter or Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
TR-Thermal Reactor
TWC-Three-Way Catalyst
WUOC-Warmup Oxidation Catalyst
WUTWC-Warmup Three-Way Catalyst

Special Features

CCV-Combustion Chamber Valve
CFI-Central Fuel Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
EFI-Electronic Fuel Injection
IC-Intercooler/Aftercooler
MFI-Mechanical Fuel Injection
OBD-On Board Diagnostics
TC-Turbocharger

Engine: Front (all Vehicles)

Drive: See Chassis Type (Page 2), all 4x2 vehicles are RWD.

ISSUED: 01-27-88

REV. NO.:

U184V/

17-KGC5.7T5HACX-2A

(For CARB Use Only)
(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Evaporative Family: KFO-3G

Engine Displacement Liters (Cubic Inches) - Type: 5.7 (350) V-8

VEHICLE MODELS:

C C 1 0 7 0 3 + E 6 3 (EXAMPLE)

Digit 1
Selling Division

C-Chevrolet
T-GMC Truck

Digit 2
Chassis Type

C-Conventional 4x2
G-Forward Control 4x2
(Body Frame Integral)
K-Conventional 4x4
M-Forward Control 4x2
(Body Frame Integral)
-Forward Control 4x2
(Conventional)
R-Conventional 4x2
S-S10/15 4x2
T-S10/15 4x4
V-Conventional 4x4

Digit 3
Series/GVWR Range

1-3400 to 7300 lbs
2-6400 to 8600 lbs
3-7400 to 14500 lbs

Digits 4 & 5
CA Dimension/Model Type

05-Blazer/Jimmy, Step-Van/
Valve Van
06-S10/15
07-42"/Pickup, Chassis-Cab
08-FC or Motor Home Chassis,
Step-Van/Value Van
09-56"/Suburban, Chassis-
Cab, Pickup
10-60" FC Chassis, Chevy
Van/Vandura, Sportvan/
Rally, Chassis-Cab,
Step-Van/Value Van
11-Motor Home Chassis
13-Chevy Van/Vandura,
Sportvan/Rally, Cutaway
Van/Vandura Special,
Hi-Cube Van/Magnavan
14-84"/FC or Motor Home,
Chassis, Chassis-Cab,
Step-Van/Value Van
16-Cutaway Van/Vandura
Special, Hi-Cube Van/
Magnavan
18-Motor Home Chassis

Digits 6 & 7
Cab or Body Style

03-Conventional Cab
(S10/15, C-K, R-V
Models)
-Cutaway Van/Vandura
Special, Hi-Cube Van/
Magnavan (G Models)
05-Chevy Van/Vandura
06-Suburban/Sportvan/
Rally with Panel Rear
Doors
16-Blazer/Jimmy
32-Motor Home Chassis
42-Forward Control
Chassis, Step-Van/
Value Van
43-Bonus Cab, Crew Cab
53-Extended Cab
(S10/15 Models)

Digits 8, 9 & 10
Body Ordering Code

ZW9-Base Body
C6P-HD Chassis; 8600 lb GVWR
C7C-HD Chassis; 10500 lb GVWR
C7E-HD Chassis; 11000 lb GVWR
E31-Hi-Cube Van (10' Steel 96" Wide)
E32-Step-Van/Value Van (Steel)
E33-Step-Van/Value Van (Aluminum)

E34-Hi-Cube Van (10' Steel 82" Wide)
E36-Hi-Cube Van/Magnavan (10' Aluminum)
E37-Utility Box (Aluminum)
E38-Hi-Cube Van/Magnavan (12' Steel)
E39-Hi-Cube Van/Magnavan (12' Aluminum)
E62-Stepside/Fenderside Pickup
E63-Fleetwide/Wideside Pickup

ISSUED: 01-27-88

REV. NO.:

0184V/

17-KGC5.7T5HACX-3A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS_____ MEDIUM DUTY VEHICLES X GAS_____ DIESEL_____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Exhaust Emission Control System: AIP/EGR/TWC/OC/OS
(CFI)(OBD)

Liter (CI): 5.7 (350)

Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
1	CG31305 CG31306	A-3	5250 5500	16084691	17087005	17087187	25101074* 25100464**
2	CG31305 CG31306		5250 5500				

* Front
* Rear

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 01-27-88

REV. NO.:

J184V/

17-KGC5.7T5HACX-4A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS_____ MEDIUM DUTY VEHICLES X GAS_____ DIESEL_____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Exhaust Emission Control System: AIP/EGR/TWC/OC/OS
(CFI)(OBD)

Liter (CI): 5.7 (350)

Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
3	CG31303+E31	A-3	6000	16084501	17087005	17087187	25101074*
	CG31303+E34						25100464**
	CG31303+E36						
	CG31603+E30		6500				
	CG31603+E38						
	CG31603+E39		6000				
	CG31303+ZW9		8000				
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						

* Front

** Rear

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ISSUED: 01-27-88

REV. NO.:

184V/

17-KGC5.7T5HACX-5A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS_____ MEDIUM DUTY VEHICLES X GAS_____ DIESEL_____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Exhaust Emission Control System: AIP/EGR/TWC/OC/OS
(CFI)(OBD)

Liter (CI): 5.7 (350)

Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
4	CG31303+E34	A-3	6000	16084501	17087005	17087187	25101074*
	CG31303+E36						25100464**
	CG31603+E30		6500				
	CG31603+E38						
	CG31603+E39		6000				
	CG31303+ZW9		8000				
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						

* Front

** Rear

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

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